

In the Claims

Please amend the claims presented during the international phase as follows.

Applicant presents a full set of claims showing markups of the claims with insertions and deletions indicated by underlining (or double bracketing) and strikethrough text, respectively.

1. (Original) A polypeptide construct comprising:
at least one single domain antibody directed against any of vWF, vWF A1 domain, A1 domain of activated vWF, vWF A3 domain, gpIb, or collagen.
2. (Original) A polypeptide construct according to claim 1, further comprising at least one single domain antibody directed against one or more serum proteins.
3. (Currently amended) A polypeptide construct according to claim 2 wherein said at least one serum protein is any of serum albumin, serum immunoglobulins, thyroxine-binding protein, ~~transferring~~ transferrin, or fibrinogen or a fragment thereof.
4. (Currently amended) A polypeptide construct according to ~~claim 2 claims 2 and 3~~, wherein at least one single domain antibody directed against one or more serum proteins corresponds to a sequence represented by any of SEQ ID NO: 16 to 19 and 49 to 61.
5. (Currently amended) A polypeptide construct according to ~~claim 2 any of claims 2 to 4~~ corresponding to a sequence represented by any of SEQ ID NOs: 13 to 15 and 42 to 45.
6. (Currently amended) A polypeptide construct according to claim 1 ~~to 5~~ wherein at least one single domain antibody is a humanised sequence.
7. (Currently amended) A polypeptide construct according to claim 6 wherein at least one single domain antibody corresponds to a sequence represented by any of SEQ ID NOs: 38 to 41 and 42 to 45.
8. (Original) A polypeptide construct according to claim 1 corresponding to a sequence represented by any of SEQ ID NOs: 8 to 12, 20 to 22, 32 to 34, and 46 to 47.

9. (Currently amended) A polypeptide construct according to claim 1 ~~any of claims 1 to 8~~ wherein at least one single domain antibody is a *Camelidae* VHH antibody.

10. (Currently amended) A polypeptide construct according to claim 1 ~~any of claims 1 to 9~~ wherein at least one single domain antibody corresponds to a sequence represented by any of SEQ ID NOs: 1 to 7, 23 to 31, 35 to 37 and 62 to 65.

11. (Currently amended) A polypeptide construct according to claim 1 ~~any of claims 1 to 10~~, wherein said single domain antibody is an homologous sequence, a functional portion, or a functional portion of an homologous sequence of the full length single domain antibody.

12. (Currently amended) A polypeptide construct according to claim 1 ~~any of claims 1 to 14~~, wherein said polypeptide construct is a homologous sequence of said polypeptide construct, a functional portion thereof, of an homologous sequence of a functional portion thereof.

13. (Currently amended) A nucleic acid encoding a polypeptide construct according to claim 1 ~~any of claims 1 to 12~~.

14. (Currently amended) A composition comprising a polypeptide construct according to claim 1 ~~any of claims 1 to 12~~ and at least one thrombolytic agent, for simultaneous, separate or sequential administration to a subject.

15. (Original) A composition according to claim 14 wherein said thrombolytic agent is any of staphylokinase, tissue plasminogen activator, streptokinase, single chain streptokinase, urokinase and acyl plasminogen streptokinase complex.

16. (Canceled)

17. (Currently amended) A method for the treatment, prevention and/or alleviation of disorders relating to platelet-mediated aggregation or dysfunction thereof, comprising administering to a subject in need of such treatment an effective amount of the Use of a polypeptide construct of claim 1 according to any of claims 1 to 12, or a nucleic acid according to claim 13, or a composition according to claims 14 and 15 for the preparation of

~~a medicament for the treatment, prevention and/or alleviation of disorders relating to platelet-mediated aggregation or dysfunction thereof.~~

18. (Currently amended) ~~The method A polypeptide construct, nucleic acid or composition according to claim 16 or a use of a polypeptide construct, nucleic acid or composition~~ according to claim 17 wherein said disorders are any arising from ~~arising from~~ transient cerebral ischemic attack, unstable or stable angina, angina pectoris, cerebral infarction, myocardial infarction, peripheral arterial occlusive disease, restenosis, coronary by-pass graft, or coronary artery valve replacement and coronary interventions such as angioplasty, stenting, carotid endarterectomy or atherectomy.

19. (Currently amended) ~~The method A polypeptide construct, nucleic acid or composition according to claim 16 or a use of a polypeptide construct, nucleic acid or composition~~ according to claim 17 wherein said disorders are any of the formation of a non-occlusive thrombus, the formation of an occlusive thrombus, arterial thrombus formation, acute coronary occlusion, restenosis, restenosis after PCTA or stenting, thrombus formation in stenosed arteries, hyperplasia after angioplasty, atherectomy or arterial stenting, occlusive syndrome in a vascular system or lack of patency of diseased arteries.

20. (Currently amended) ~~The method A polypeptide construct, nucleic acid or composition according to claim 16 or a use of a polypeptide construct, nucleic acid or composition~~ according to claim 17 wherein said disorder is plaque or thrombus formation in high shear environments.

21. (Currently amended) ~~The method A polypeptide construct, nucleic acid or composition according to any of claims 16, 18 to 20 or a use of a polypeptide construct~~ according to claim 17 to 20 wherein said polypeptide construct is administered intravenously, subcutaneously, orally, sublingually, topically, nasally, vaginally, rectally or by inhalation.

22. (Currently amended) A composition comprising a polypeptide construct according to ~~claim 1 any of claims 1 to 12, 16, 18 to 21 or a nucleic acid encoding said polypeptide construct, or a composition according to claims 14 and 15 and a pharmaceutically acceptable vehicle.~~

23. (Currently amended) A method of producing a polypeptide according to claim 1 any of claims 1 to 12, 16, 18 to 21, comprising

(a) culturing host cells comprising a nucleic acid capable of encoding a polypeptide according to claim 1 any of claims 1 to 12, 16, 18 to 21 under conditions allowing the expression of the polypeptide, and,

(b) recovering the produced polypeptide from the culture.

24. (Original) A method according to claim 23, wherein said host cells are bacterial or yeast.

25. (Currently amended) A method for treating invasive medical devices to prevent platelet-mediated platelet mediate aggregation around the site of invasion comprising the step of coating said device with a polypeptide construct according to claim 1 claims 1 to 12.

26. (Currently amended) An invasive medical device for circumventing platelet-mediated platelet mediate aggregation around the site of invasion, wherein said device is coated with a polypeptide construct according to claim 1 claims 1 to 12.

27. (Currently amended) A method of identifying an agent that modulates platelet-mediated aggregation comprising

(a) contacting a polypeptide construct according to claim 1 claims 1 to 12 with a polypeptide corresponding to its target, or a fragment thereof, in the presence and absence of a candidate modulator under conditions permitting binding between said polypeptides, and

(b) measuring the binding between the polypeptides of step (a), wherein a decrease in binding in the presence of said candidate modulator, relative to the binding in the absence of said candidate modulator, identifies identified said candidate modulator as an agent that modulates modulate platelet-mediated aggregation.

28. (Original) A kit for screening for agents that modulate platelet-mediated aggregation according to the method of claim 27.

29. (Canceled)

30. (Currently amended) A method of diagnosing a disease or disorder characterised by dysfunction of platelet-mediated aggregation comprising the steps of:

- (a) contacting a sample with a polypeptide construct according to claim 1 ~~claims 1 to 12, and~~
- (b) detecting binding of said polypeptide construct to said sample, and
- (c) comparing the binding detected in step (b) with a standard, wherein a difference in binding relative to said sample is diagnostic of a disease or disorder characterised by dysfunction of platelet-mediated aggregation.

31. (Original) A kit for screening for diagnosing a disease or disorder characterised by dysfunction of platelet-mediated aggregation according to the method of claim 30.

32. (Currently amended) A kit according to claim 28 or 31 comprising a polypeptide construct ~~according to any of claims 1 to 12 comprising at least one single domain antibody directed against any of vWF, vWF A1 domain, A1 domain of activated vWF, vWF A3 domain, gpIb, or collagen.~~

33. (New) A kit according to claim 31 comprising a polypeptide construct comprising at least one single domain antibody directed against any of vWF, vWF A1 domain, A1 domain of activated vWF, vWF A3 domain, gpIb, or collagen.